

A Head of its Time: Early Toy Books with Hole Effects

Joseph Edmonds, U.K.
Ian Alcock, U.K.



Figure 1

Over a decade before Dean & Son produced their first books in which, at the tug of a tab, characters can be made to move in accordance with the incidents described, they produced an earlier series of novelty books under the series banner *Dame Wonder's Transformations*. Peter Haining writes that "the idea was simplicity itself" since the mechanism just involves a round hole in the same position in each of the pages, through which a face is seen illustrated on the final page, which is left uncut. The pages are illustrated on the recto only (versos blank) with a central character lacking a face. As the pages are turned, the characters, or their dress, change, but the face, visible through the page holes, remains the same. The example in Haining's wonderful photograph book (*Movable Books, an Illustrated History*) is the title *Miss Rose*, where we see a girl "transformed" from her plain English dress into the typical costumes of a variety of exotic nations before ending up back as her English self.



Figure 2

Continued on page 12

Poppin' Fresh: Vintage 3-D Pop-up Cards

Donald-Brian Johnson
Omaha, Nebraska

"Boys! Girls! Men! Women! If you know just 20 people, you can make at least \$50 in your spare time! Because *everyone* you know loves spectacular, nationally famous greeting cards by Wallace Brown!"

Well! Who could pass up an offer like that? Snazzy cards and \$50 in pocket money! ("More likely \$100-200!") Plenty of folks in the 1950s and '60s found the idea irresistible, thanks to colorful Wallace Brown ads which appeared in practically every national publication, from comic books and homemaking journals, to slightly spicy "men's interest" mags.



Box of pop-up cards



Birth announcement
pop-up card

Wallace Brown offered an enticing variety: the "Royal Deluxe All-Occasion Assortment" ("all embossed, with enhancements including jewels, flocking, feathers, and bronzing"); the "T'all-In-Fun Set" ("terrific designs that tickle the funny bone in the new smart TALL shape"); and the "Christmas Wonderland Splendor Collection"

("beautiful sparkling cards glowing and glistening with old-fashioned Christmas cheer"). Top of the line though, and just right for the futuristic '50s and '60s: "Action Pop-Up Cards" - "leaping off the page in three dimensions!"

Nowadays, even the most mundane movie is released in 3-D. But, when first introduced in the 1950s, 3-D was something extra-special. Once the cardboard glasses with their varicolored lenses (one red, one blue/green) were perched precariously on your nose, it was time to sit back and thrill, as assorted *Bwana Devils* and *Robot Monsters* popped off the screen, practically landing in your lap!



Pop-up get well card

Continued on page 17

The Movable Book Society

ISSN: 1097-1270

Movable Stationery is the quarterly publication of The Movable Book Society. Letters and articles from members on relevant subjects are welcome. Back issues are available at: <http://bit.ly/1hpZ90U>.

The annual membership fee for the society is \$30.00 in the U. S. and \$35.00 outside of the U. S. For more information contact: Ann Montanaro Staples, The Movable Book Society, P. O. Box 9190, Salt Lake City, Utah 84109-0190, USA.

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The deadline for the August issue is July 15.

2018 Conference Goers!

Our plans for the 25th anniversary conference in Kansas City are shaping up spectacularly. If you are planning to attend (or even just thinking about it), here are some details to consider right now:

New for 2018: “Antiques Roadshow” for Pop-up Books

Saturday’s program will feature The Movable Book Society’s version of Antiques Roadshow, hosted by Larry Rakow. Since 1990, Larry Rakow has been the owner of Wonderland Books, an internet shop specializing in old, rare, and collectible children’s books, with a particular interest in pop-ups and movables. Larry will be joined by collection veterans Ellen G. K. Rubin and Larry Seidman. If you have a book that is ripe for appraisal and you would like to join in the fun, contact Shawn Sheehy at shawnsheehy@gmail.com.

Show-and-Tell

Speaking of old, rare or collectible books: Do you have something unusual that you would like to share at the conference? We are organizing an informal show-and-tell session for Friday evening at the hotel. Prepare to bring a special book, and watch for further details.

Back by Popular Demand: The Open Mic

Given its overwhelming popularity in 2016, the Open Mic session will return as part of Friday’s program. If you are interested in presenting a 5-minute, web-based update on your current work, contact Shawn Sheehy at shawnsheehy@gmail.com. Only ten spots are available—sign up now!

Book Signings

This conference will be a great opportunity for collecting signatures. David Carter will officially be signing books on Thursday evening. Bruce Foster will be signing during the book fair on Saturday. Also, many of the engineers who contributed to the *A to Z: Marvels in Paper Engineering* folio collection will be available for signing during the fair. See the

conference agenda (<https://bit.ly/2J16VDY>) to find out who else will be in attendance and available to sign your books!

Scholarships

We are now accepting conference scholarship applications. Scholarships are limited and chosen by lottery. All (except previous recipients) are welcome to apply. The deadline is July 1. Visit the conference website (link below) for application information, or contact Kyra Hicks at kyra262@yahoo.com.

Emerging Engineer Prize

We are now accepting submissions for the Emerging Engineer Prize. Entrants must be registered undergraduate or graduate students, or have just completed a course of study in the spring of 2018. Qualifying projects must include pop-up and/or movable structures and must have been created during a course of college study. Visit the conference website (link below) for application information, or contact Emily Martin at emilym743@gmail.com.

Meggendorfer Prize for Artist Books

We are now accepting submissions for the Meggendorfer Prize for Artist Books. Qualifying books must include pop-up and/or movable structures and must have been created in the past three years. The contest will be juried by book artist Kevin Steele (mrkevinsteele.com) and trade pop-up book contributor Chuck Fischer (chuckfischer.com). Visit the conference website (link below) for application information, or contact Shawn Sheehy at shawnsheehy@gmail.com.

For full conference details, visit <https://bit.ly/2qtMTuh..>
Can’t wait to see you there!

The Movable Book Society

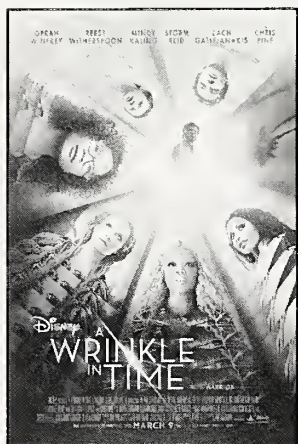
Changes are taking place within The Movable Book Society. After leading the Society for twenty-five years, Ann Montanaro Staples has chosen to step down as Director. In the fall of 2018 the Board will elect a new Director. Many new opportunities are available for members.

One of those opportunities is the newsletter. The MBS is seeking an editor-in-chief for its newsletter. Though it is currently published quarterly in print, alternatives are being considered. As with all MBS board positions, this one is a labor of love. Ideally, a new editor will be in position to take over all responsibilities related to publishing the newsletter by January 2019. If interested, please contact Ann Staples at staplespop@gmail.com.

Popping Into Math

Rhonda Harris Taylor and
Naney Larson Bluemel

For almost three decades, the two of us provided workshops to public education teachers, promoting the use of interactive books in the classroom. The majority of our attendees taught math. One of our challenges was assisting those teachers in linking literature (books) with mathematics, to achieve cross curricular learning. One of their challenges was engaging students, who often had negative and stereotypical ideas about math, with that subject. Interactive books provided one answer for our mutual goal: connecting students with math in ways that led to an understanding that “we live in a mathematical world” (NCTM, FAQs, Principles and Standards, <https://bit.ly/2qBp4lb>, last page) and of how to function effectively in it.



A Wrinkle in Time

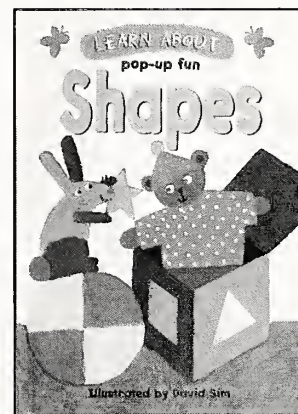
In the last several years we have noted several examples of popularity that possibly indicate a more broad-based interest in mathematics. One was the widespread publicity surrounding the award of the 2014 prestigious Fields Medal, arguably the highest honor in mathematics, to a woman, Maryam Mirzakhani, for the first time since it was instituted in 1936. Another was the box office success of the 2016 movie, *Hidden Figures*¹, a biographical drama highlighting three African American women mathematicians who worked at NASA (National Aeronautics Space Administration) during the racially segregated 1960s, when the national goal was to win the space race. A third is the April 2018 Disney release of *A Wrinkle in Time*, with a high profile cast². The movie is based on the award-winning³ book written in 1959/60 by Madeleine L'Engle and which, after multiple rejections, was published in 1962. It's been suggested that the rejections were because the book was a children's science fiction story focused on physics, with a female protagonist whose talent was mathematics.

The convergence of our long-time interest in math and interactive books with recent popular enthusiasm about math led us to ask: What's been done with the pop-up book and math for juvenile audiences? We are familiar with many math-centered books for kids that use interactivity such as flaps and pull tabs and wheels, all of which work efficiently with the

question/answer format frequently used in math books. But, we wondered: What pop-up approaches have been used with math topics? In other words, how has paper engineering brought three dimensions in the form of pops to what is often viewed as simply numbers and calculations? In perusing our own collections, we were pleased with the number and subject range of such books. While we used interactive books that provided implicit as well as explicit math principles in our workshops, here we offer a selection of books that is explicit in the presentation of mathematics. Each of the books shares the characteristic that the focus of its interactivity is the use of pop-ups that leap from the book when pages are turned or are in books in which they are the majority of reveals when flaps are turned or tabs pulled. This article's coverage is representative, not comprehensive, of the many titles that are available.

This Article

We found that our selection of math pop-up books fell easily into several subjects that are terms borrowed from the National Council of Teachers' (NCTM) *National Principles and Standards for School Mathematics* (<https://bit.ly/2EQOSOu>) and the national Common Core State Standards Initiative (<https://bit.ly/2EQLuTJ>). Under these topics the books are arranged chronologically by publication date, because we always enjoy seeing the historical progression of interactive books. Those narrow topics of “geometric ideas: shapes,” “numbers and counting sequence,” “number calculations,” and “measurement and data: time” are followed by two broader categories: “Multiple Concepts” and “The Special Case of Alice.”



Learn about Shapes

We should note that mathematics and interactive books have a shared history dating to the beginning of such books. The Smithsonian Institution's brochure for its 2011 exhibit celebrating paper engineering has a synopsis of the earliest interactive books and their roles in “calculated data” (<https://s.si.edu/2viSedH>)

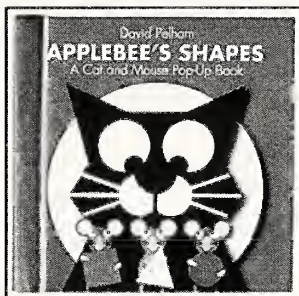
Geometric Ideas: Shape

For young learners, the basic introduction to geometry is the recognition of shapes.

Learn About Shapes (2002) was one of a series of small (less than eight inches tall and six inches long) Piggy Toe Books designed to teach basic concepts to young readers. *Shapes* was illustrated by David Sim, designed by Tresha Runnells, and paper engineered by Dennis Meyer. The book combines simple pop-ups, with pull tabs and flaps used to add

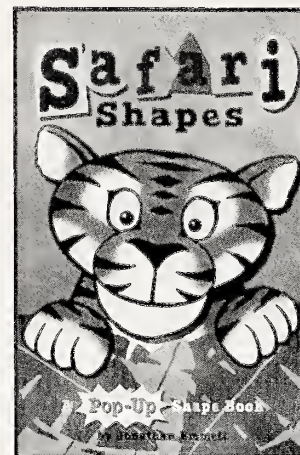
more action. The illustrations are reminiscent of children's drawings. Each double page spread has a simple pop-up to help illustrate the shape being explored in that spread (triangle, circle, etc.). The shapes are everyday objects, such clocks and balls for circles.

Safari Shapes: A Pop-up Shape Book (2005) combines identification of shapes with identification of animals. Each two page spread provides either a three dimensional pop-up frame in a particular shape (such as oval) or a pop-up shape to serve as a background. Within the frame, or on or around the shape, is the pop-up of an animal. The text identifies the animal, and alliteration links the name of the animal with the name of the shape (such as "An ostrich in an oval"). Turning the book's pages starts action within the pops, such as the rhino's mouth moving, the snake crawling, or the bear playing peek-a-boo with his paws (we were surprised to discover that peek-a-boo bear toys are fairly common!). The book's text and illustrations are by Jonathan Emmett.



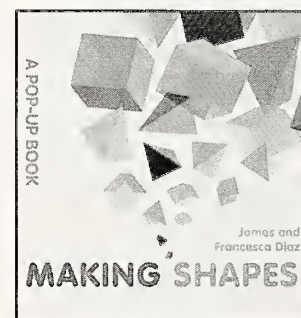
Applebee's Shapes

Also for the youngest readers, David Pelham has a series of pop-up books that use a cat and mouse plot to teach basic concepts for math. The books are sized for small hands (at about six by six inches). One title is *Applebee's Shapes: A Cat and Mouse Pop-up Book* (2006). Opening the double page spreads allows the pop-ups to create such action as a mouse popping up with a triangle of cheese. In *Shapes*, questions under small flaps ask the reader to find numbers of various shapes in the double page spreads. *Shapes* can be viewed in a three minute, sixteen second presentation (<https://bit.ly/2H4xIZ8>), with the read aloud in English while the book is not.



Safari Shapes

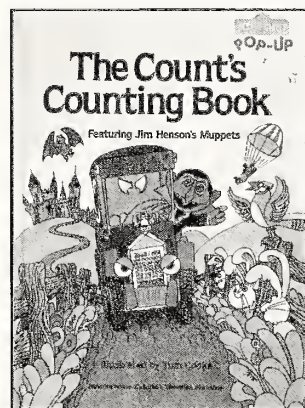
Making Shapes (2012) is by James and Francesca Diaz. Each two page spread emphasizes one geometric shape, such as circle or triangle. On the right hand page is a three-dimensional figure that transforms the two dimensional geometric shape into a three dimensional one, such as a star (from polygon) or sphere (from circle). Thus the reader is "making shapes." The pop-ups are activated by page turns or ribbon pulls. The use of bright colors and the large pages make the book especially enticing to young readers. The book is demonstrated in a one minute, seventeen second YouTube video by Tango Books at: <https://bit.ly/2Hs9jqg>.



Making Shapes

Numbers and Counting Sequence

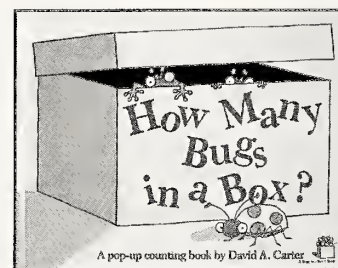
There are a multitude of pop-up books that introduce young readers to the identification of numbers and their counting sequence. Especially fascinating are the clever ways that pop-up books present numbers (seemingly a simple and rather dull concept) to capture the interest of young audiences. Strategies include the blending of language, rhyme, storylines, fun characters, etc. with the numbers.



The Count's Counting Book

The Count's Counting Book (1980) is subtitled *Featuring Jim Henson's Muppets*. Illustrated by Tom Cooke, with paper engineering by Ib Penick, the book combines pop-ups activated by page turns and others moved by tabs. Each page features the *Sesame Street* television series character of Count [von Count] and a number (from one to ten) that he encounters in his travels.

The first of David A. Carter's *Bugs* series of interactive books was the 1988 *How Many Bugs in a Box?* Designed and illustrated by Carter, the double-page spreads place a box of bugs on the right hand side and a question for the young reader on the left hand side. For example, one page asks, "How many bugs are in the tall box?", and when a flap opens the striped box, revealed are pop-ups of "Three pretty bugs." The final spread asks "How many bugs are in the wooden box?", which is an impressive pop-up crate with saws sticking out of it. A sawing sound is created by opening the pages and grating the saw edges against the box. Of course, the box contains "saw bugs!" The book is demonstrated in a fifty-nine second video, along with a perky music score (which unfortunately masks the sound generated in the last pop-up spread): <https://bit.ly/2qBFrOt>.



How Many Bugs in a Box?

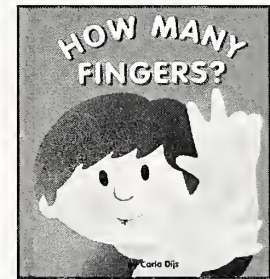


Nature by the Numbers

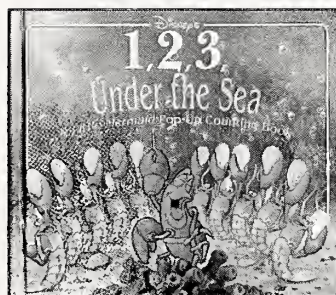
Nature by the Numbers: With Pop-up Surprises (1994) combines counting to ten with information about the natural world. Each page has an almost page-sized flap in which realistic illustrations of young animals are placed in a landscape that includes a number, and the number of animals matches that notation. Open the flap and the young animals are portrayed as full-grown ones, which pop from the page. The number of adult animals matches the number of young ones. Thus, as the text says, “THREE chicks become three ostriches.” The final surprise is that at the end of the book is a double page spread in which two flaps fold out to illustrate a non-pop scene of “ONE HUNDRED fireflies.” We dare you to count them! The flavor of the book’s illustrations evokes those in pop-up books produced by National Geographic in the 1980s and 1990s.⁴ The book’s text is by Lynette Ruschak, with illustrations by GB McIntosh, and paper engineering is by Vicki Teague-Cooper.

Let’s Count! (1994) is part of a series of *Preschool Pop-up Books* by Wishing Well Books. Each two page spread highlights a number from one to five. Simple pops help illustrate a rhyme about the number and the animal characters on the page. For instance, the pop-up of three monkeys in a tree goes with “THREE jolly monkeys, Happy as can be, Eat three bananas In a big banana tree.” To help emphasize the numbers, the notations are in bold print, followed by the right number of black dots, and emphasized by all capital letters of their names. The text is by Wendy Lewison and illustrations are by John Himmelman.

How Many Fingers? (1994) by Carla Dijs cleverly uses pop-ups of the counting aid most often employed by small children—their fingers! The book is small, about six and a half inches tall, to fit those little fingers. The book’s pages progress through one to ten, and each double page spread illustrates a different child’s face and the requisite number of fingers (which constitute the pops). Charming! Also, there are illustrations of animals on each page, with their count matching the number on that page, along with a descriptive phrase, such as “five hungry rabbits.”



How Many Fingers?

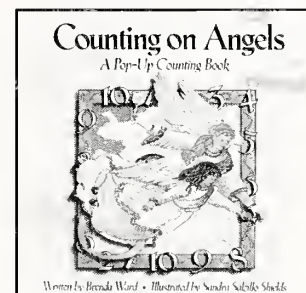


1, 2, 3 Under the Sea

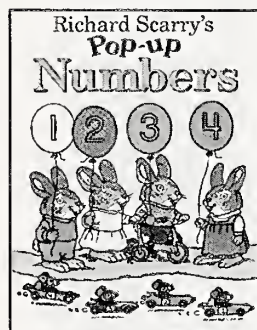
Disney’s 1995 *1,2,3 Under the Sea: A Little Mermaid Pop-up Counting Book* uses various denizens of the deep playing musical instruments to introduce numbers. Ocean colors of green and blue evoke the flavor of the animated film that inspired the book. Most of the double-page spreads are pop-ups activated by page turning or pull tabs. The vocabulary uses some rhyming and alliteration to explain the actions. For instance, there are “5 newts playing flutes” and “8 crayfish with clam castanets.”

Word Publishing’s *Counting on Angels: A Pop-up Counting Book* (1995), uses pop-ups of angels, moved by page turns, to teach counting from one to five. The double page spreads, rendered in pastel watercolors, also utilize rhymes to explain the activities of angels. For example, “Three, four, on wings they soar, praising the One whom they adore.” The book is written by Brenda Ward and illustrated by Sandra Salzillo Shields.

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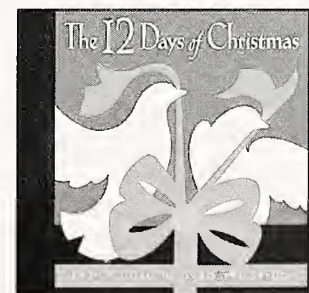
Counting on Angels



Richard Scarry’s Pop-up Numbers

Prolific and well-known children’s book author and illustrator Richard Scarry’s distinctive portrayals of anthropomorphized animals were translated into *Richard Scarry’s Pop-up Numbers* (1996). Simple pop-ups coupled with flaps and tabs encourage young readers to count such things as apples, mice “boating on the pond,” and “NINE little rain bugs trying to keep dry.” Throughout the book, the young reader is directed to “count them all.” The book was designed by Jim Deesing and paper engineered by Renée Jablow.

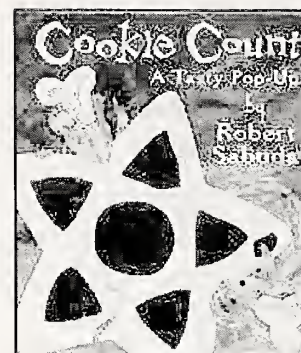
Robert Sabuda’s *The 12 Days of Christmas* (1996) illustrates the 18th century cumulative song in double page pop-ups that place predominantly white illustrations against varied solid color backgrounds. Gatefolds reveal smaller pop-ups. The familiar song can be used with younger scholars to practice ordinal numbers or posed as an algebra problem for older ones.



The 12 Days of Christmas

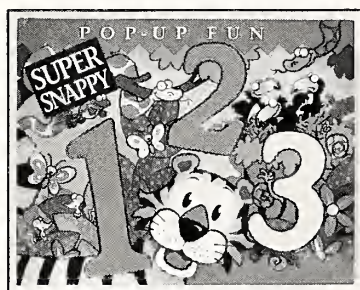
The book is demonstrated in a one minute, forty-eight second video, accompanied by the song, “Have Yourself a Merry Little Christmas”: <https://bit.ly/2JRVD66>. The book was also available as a 2006 Anniversary Edition with extra pages and an ornament.

Sabuda’s *Cookie Count: A Tasty Pop-up* (1997) merges the appeal of cookie treats with counting. Each two page spread of an elaborate cookie pop-up offers a number with the name of the cookie and the first of a rhyming pair of words (such as “munch”). The second part of the rhyme is on the following page (such as “crunch”). The grand finale is a pop-up gingerbread house with ten windows. *Cookie Count* was the recipient of the 2000 Meggendorfer Prize for Best Paper Engineering (<https://bit.ly/2H7Muoc>). There are several YouTube videos of *Cookie Count*, but this two minute, twenty-one second option offers clear views of the engineering and its use of varieties of paper and its action (which includes a twirling pinwheel), accompanied by sprightly music: <https://bit.ly/2Be8sX8>.



Cookie Count

Flip-pop Counting (1999) has a clever format. The square book (a bit more than six inches tall and long) provides large white numbers against pastel backgrounds, one per page. Each page is bisected on the diagonal—so, fold back the top or bottom corner of each page, and a pop-up is activated. Each pop-up contains the appropriate number of animals or objects, such as “5 dancing ducks.” Each explanatory phrase also incorporates alliteration, to help language skills. The number ten is the big surprise—the whole page is a flap that opens to reveal two child-size hands with little finger puppets and the declaration that “I can count from one to ten with the help of all my friends!” The book was paper engineered and illustrated by James R. Diaz.

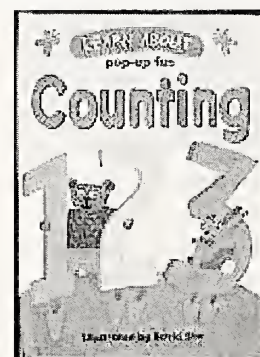


Super Snappy 1, 2, 3

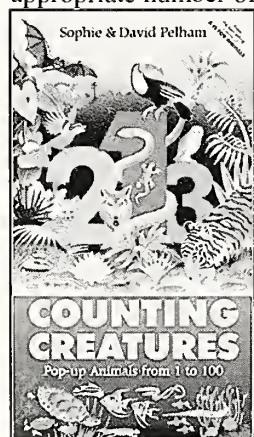
Super Snappy 1, 2, 3 (2001) is another book that teaches counting from one to ten. Part of the *Super Snappy Pop-up* series from The Templar Company, it was written by Dug Steer, illustrated by Derek Matthews, designed by Janie Louise Hunt, and paper engineered by Richard Hawke. The rectangular book (nine inches tall and more than eleven inches long) has pages filled with colorful, simple illustrations of various animals. Action is provided by pop-ups revealed by page turns and flaps. Each number has a rhyme, with numbers in bold, to introduce it: “1 lonely tiger was feeling sad and blue. He found a stripy tiger friend, and that made 2.” For each number, there is a question for the reader that emphasizes that number: “Can you find more 7-of-a-kinds?” [in the illustrations]. The final double page pop-up springs merrily into the air, and it contains all of the numbers.

Number Jungle: A Rhyming Pop-up for Preschoolers (2002), published by Better than Broccoli Books, was an inexpensive pop-up book that still managed to combine a storyline with brightly colored illustrations, number counts, and rhyming words. Each double page spread (which opens top to bottom rather than side to side) has one simple pop-up of the Panda protagonist boating on a river and at least one other pop of a jungle animal or animals. The final pop-up spread is a medley of many animals, and the Panda declares “Now that you have counted up to ten...Let’s do it again!”

Learn About Counting (2002) is another in the series of Piggy Toe Books of basic concepts for young readers. It is illustrated by David Sim, designed by Tressha Runnells, and paper engineered by Mariana Pereira. Each page covers one number, and on that page are the appropriate number of puppies, butterflies, etc.



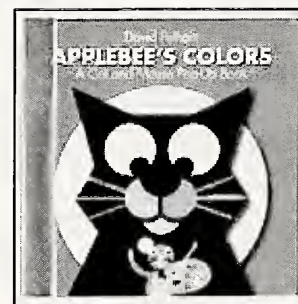
Learn About Counting



Counting Creatures

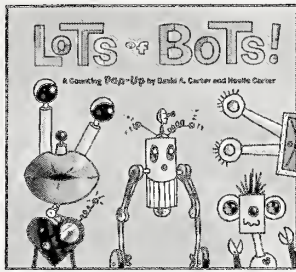
Counting Creatures: Pop-up Animals from 1 to 100 (2004) uses numbered flaps to reveal intricate pop-ups of animals. The number of animals illustrated match the number, and the name of the animal is an alliteration for the name of the number (as “eight eels”). After the number twenty, the other numbers are counts by ten (as twenty, thirty). Design and paper engineering are by Sophie and David Pelham and illustrations are by David Pelham. The book is demonstrated in a five minute, one second YouTube video at <https://bit.ly/2qCy9JL>.

Applebee’s Numbers: A Cat and Mouse Pop-up Book (2005) is another title in David Pelham’s series about the cat and mouse escapades. Pop-ups provide lots of action, such as mice jumping out of a cupboard and surprising the cat when s/he lifts the cover



Applebee’s Numbers

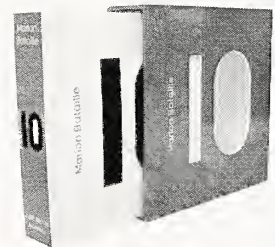
on a plate (*Numbers*). In *Numbers*, small flaps pose questions, such as “can you find four...” and then when turned, reveal the pictures of things to find. A four minute, four second presentation of *Numbers* provides not only a look at the book’s pages but also a read-aloud of the text in English, although the book is not (<https://bit.ly/2vp3Hse>).



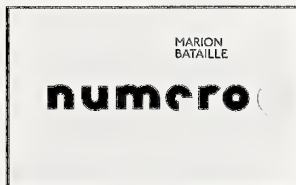
Lots of Bots

David A. Carter and Noelle Carter combined robots with numbers in their 2011 book of *Lots of Bots! A Counting Pop-up*. The pop-ups are activated by page turning, flaps, and pull tabs. The format is question/answer and uses rhymes. For instance, “Who helps you clean your messy room?” Lift the red flap of a Vroom Vroom 2000 and learn that “2 handy Vacuum Bots go vroom, vroom, vroom.” We loved the twirling motion of the Rescue bot helicopter and of the Kissing Bots! The book’s pages can be viewed in a thirty-eight second YouTube video from Random House Kids’ Books at <https://bit.ly/2EPU4Cg>.

10 (2011), which presents the dramatic contrast of a red box case and the book’s white pages that serve as a stark backdrop for the large black numbers. Turning each page reveals a number, sequencing forward from one to 10. But, continuing to turn the page as a flap converts that number to another number (such as four to seven), that pops out and also reverses the count backward. The book can be seen in a fifty-nine second YouTube video at: <https://bit.ly/2HCSdnl> — it is accompanied by a ticking sound similar to a metronome.



10



Numero

The second book is *Numéro* (2013), which is a rectangle somewhat smaller than *10*, being a bit more than six and a half inches long and approximately four inches tall. The yellow book is comes in a yellow case. Its yellow pages are the background for the stark black numbers. The first two pages introduce a circle (zero) and a straight line (one). Turning the page pops out the next number in sequence, and each number is created using only circles and straight lines. It can be viewed, to the accompaniment of percussion sounds, in a fifty-one second video at: <https://bit.ly/2IYV2yl>.

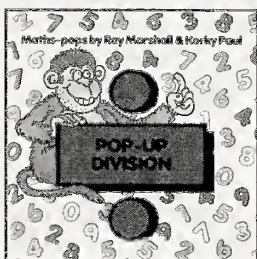
Number Operations

Besides learning to recognize numbers as symbols and learning to count, young readers must eventually master number operations (addition, subtraction, multiplication, division). And, of course, there are pop-up books to assist in that learning!

Hallmark’s *Fun on the Farm with Numbers: A Hallmark Pop-up Counting Book* (1980?) uses pop-ups and other interactivity of a farm’s animals and its human stewards to teach kids not only to identify numbers but to add. So for instance, a double page pop-up spread of the farmer with six ponies (“who kick up their heels just for fun”) announces that “Here comes a new pony.” Pulling a tab reveals that extra pony and the tab asks “Did you count to **seven** before you were done?” The back cover notes that a Stanford University early childhood education specialist was a consultant, which might explain why the elderly man and woman are identified as “two farmers” rather than the expected “famer and wife.” The book is by Barbara Loots, with pictures by Ellen Sloan and design by Bruce Baker.



Fun on the Farm with Numbers



Pop-up Division

Pop-up Division (1984) is one of a series of small pop-up books focused on calculation. The other three titles are *Pop-up Addition* (1984), *Pop-up Multiplication* (1984), and *Pop-up Subtraction* (1984). They were illustrated by Korky Paul and paper engineered by Ray Marshall. In *Division*, each double-page spread has a pop-up activated by page turning or a flap, and it poses a real-life division problem, such as “3 bones ÷ 3 dogs.” The pop for each page reveals the answer for that spread’s calculation. The final spread has eight division problems, with small flaps revealing the answers.



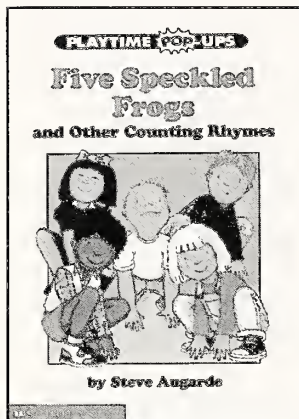
Ten Little Lambs

Ten Little Lambs: A Pop-up Counting Storybook (1988) introduces numbers and counting as well as subtraction. Pop-ups, along with tabs, provide the action for a book that starts with ten, rather than one. On each page, one lamb is removed from the count, which carries over to the

next two page spread. The numbers are in bold to emphasize them. For instance, there are “**2** little lambs, playing by the creek; **1** would **hide**. **1** would **seek**.” Turning the page provides the action, such as revealing the hiding lamb rising from behind the pop-up of pond grasses. On the next page, there is only one lamb, who is ensconced in a pop-up bed. *Lambs* also incorporates the concept of opposites, a basic building block for math. The words of opposites, such as “short” and “tall” are in bold print to emphasize the relationship. The book was designed by Dick Dudley and illustrated by Pat Paris.

Pop-up Baby Bunny (1991) is a small book (less than six inches tall) that uses a storyline about a bunny family to focus on numbers one to three. Each double page spread has a simple bunny pop-up. As the story progresses, the young reader is introduced to addition and subtraction. So, for instance, one spread says that “This baby bunny has a brother and a sister.”

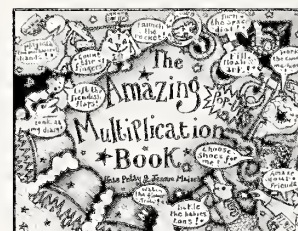
The, the next spread says: “Three playful bunnies see some grass to hop over.” It is illustrated by Peggy Tagel.



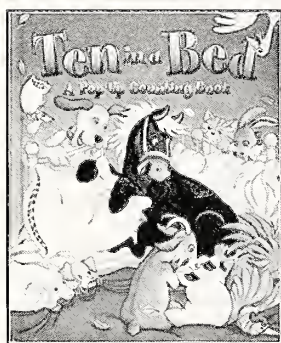
Five Speckled Frogs

A Scholastic publication, *Five Speckled Frogs and Other Counting Rhymes* (1996) combines counting, simple calculations, rhymes, and pantomime actions, all in a seven inch tall book. Each of the book’s double page spreads cover a number from one to five. Opening the pages makes the pop-ups create the central action of the rhyme. So, “Five little speckled frogs, Sat on a speckled log, eating some delicious bugs...” The accompanying pop-up of five stacked frogs, graduated in size, allows them to open their mouths and stick out their tongues. In the rhyme, one frog jumps into the pool, which leaves four (subtraction). At the bottom of each spread are simple line drawing panels that demonstrate how the rhyme’s action might be acted out. The book’s rhymes also incorporate vocabulary that encourage development of concepts such as directions (right, left), adjectives, and opposites (in, out, fat, thin). The illustrations and paper engineering are by Steve Augarde.

The Amazing Multiplication Book (1998) has text by Kate Petty, illustrations and lettering by Jennie Maizels, and paper engineering by Damian Johnston. The book is characteristic of other Petty and Maizels collaborations, with double page spreads filled to overflowing with illustrative details and interactive components, a format that is much cherished by one of us! Pop-ups are activated by page turning and by flaps. Multiplication of numbers from one to twelve are covered. The book has many, many calculations for the reader to perform, such as “I’m Siegfried Seven. There are 7 days in a week, so multiply each page of my diary by 7.” And, the miniature diary, with turnable pages, is included.



The Amazing Multiplication Book



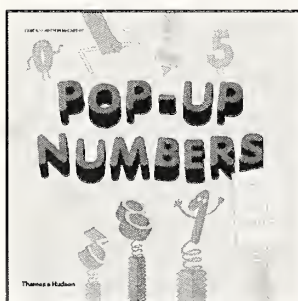
Ten in a Bed

Ten in a Bed: A Pop-up Counting Book (2003) uses a selection of animals to illustrate the familiar children’s song that can teach subtraction. The almost eleven inch tall book is brightly colored and the pop-ups provide clever action. We are particularly fond of the “eight in a bed” scene where animal feet move back and forth with the turning of the pages! The double page spreads of pop-ups also use pull tabs to add extra action. The book’s text and illustrations are by Gill Guile.

The Odds Get Even: The Day the Odd Numbers Went on Strike (2003) is one of our favorite interactive math books, probably because it has a fascinating storyline about the childlike characters, who are odd numbers. Each double page spread has pop-ups activated by page turning, with more motion provided by flaps or tabs. Our favorite pop-up was the one of the Odds holding up their protest signs! Incorporated in the story line are calculations such as “Seems 7 plus 3 adds up to 10, And when 1 joins 9 it happens again.” The book was written by Pamela Hall, illustrated by Lynne Chapman, designed by Treasha Runnells, and paper engineered by Dennis Meyer.



The Odds Get Even

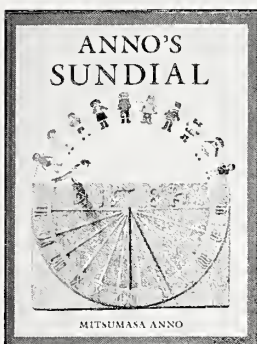


Pop-up Numbers

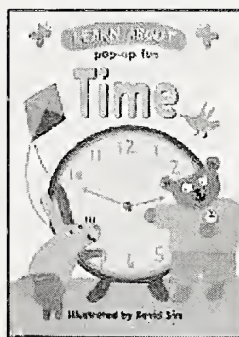
A book literally composed of pop-ups of numbers is *Pop-up Numbers: 3-D Fun with Figures* (2013), with paper engineering by Courtney Watson McCarthy. Rife with bright colors, each two page spread opens to reveal an impressive edifice of numbers. For each spread, questions ask the reader to perform various counts or calculations. For instance, “Count all the sides of the rectangles.” Or, “How much do the red numbers add up to?” The book also includes a couple of pull tabs.

Measurement and Data: Time

Measurement and data collection and analysis can be and is taught to even the youngest learners. One form of measurement that quickly becomes familiar to children is time.



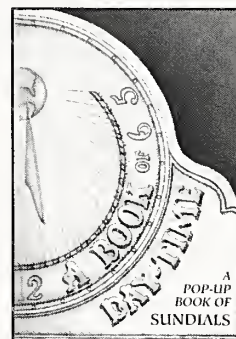
Anno's Sundial



Learn About Time

An atypical approach to time instruction is *Anno's Sundial* (1995), with text and illustration by Mitsumasa Anno. It is usually recommended for grades four and up, but it is rich in fairly sophisticated text that explains the “complex relationship between the motions of the Sun and Earth” (preface) and the way that sundials work. The simple pop-ups include a top sundial, a tower, a house that can be used to understand shadows, and a globe with latitude and longitude. The interactive elements are accompanied with instructions for using the book in experiments to better understand the principles. The last two pages have flaps that reveal sundials designed for use in different latitudes.

A similar coverage is *A Book of Day-time: A Pop-up Book of Sundials* (199?), designed, illustrated and paper engineered by Cindy West. When both covers are opened, the book is shaped like a sundial. Five double-page spreads open into pop-ups of variants of sundials. The text offers explanations of the history and types of time (such as solar time, clock time, and standard time) and of sundials. The book includes an embedded compass, so the reader can follow instructions for aligning the pop-up sundials in certain directions.



A Book of Day-time

Learn About Time: Pop-up Fun (2002) is one more title in the Piggy Toe Press stable of titles of basic concepts for young readers. It was illustrated by David Sim, with design by Treeshia Runnells, and paper engineering by José Seminario. Targeted at the younger reader, the book takes a more traditional approach to time instruction. Each page has a small clock that is actually a flap that turns up to reveal a time of day (such as “9 o'clock”). Those times of day mark activities that fill a child's day, such as “playtime” and “snacktime,” and the simple pop-ups illustrate those activities. Turning the page activates the pop-ups, which are augmented with pull tabs and flaps.

Multiple Concepts

Some pop-up books cleverly integrate multiple math concepts in one presentation. One attribute that they all share in common is the potential to be used with beginning learners as well as readers with more advanced knowledge of math.

David Carter has a series of five books subtitled *A Pop-up Book for Children of All Ages*, and over the years, they have utterly captivated all the math folks of our acquaintance. The five titles are *One Red Dot* (2005), *Blue 2* (2006), *600 Black Spots* (2007), *Yellow Square* (2008), and *White Noise* (2010). A sixth book, *Hide and Seek* (2012), lacks that subtitle referencing *All Ages* but is considered part of this series of books that the publisher designates as Carter's “art pop-up books.” All the books are bright with primary colors and the double page spreads are complex, abstract pop-ups. Wheels and pull tabs add even more motion. In *White Noise*, the action of the pops creates sound. From the standpoint of mathematics, these pop-up books are indeed for all ages. They can be read with younger kids, who can recognize the shapes and the progressive counting. Older audiences are engaged by more sophisticated mathematical concepts such as symmetry and fractals. Teachers appreciate the cross-curricular aspects, recognizing the blend of art with math concepts and the clever use of language.



One Red Dot

One Red Dot received 2006 Meggendorfer Prize for Best Paper Engineering (<https://bit.ly/2H7Muoc>). A one minute, ten second YouTube video from the Cooper Hewitt Museum provides a clear presentation of the pops and their action (<https://bit.ly/2qBs9Sh>).

Blue 2 is demonstrated in a two minute YouTube video, to the accompaniment of an upbeat tune: “Spring in my Step.” See it at: <https://bit.ly/2H1111R>.

This two minute, eleven second YouTube video of *White Noise* clearly demonstrates the book's elaborate constructions and action, including the noises generated by its moving parts: <https://bit.ly/2vjks7W>.

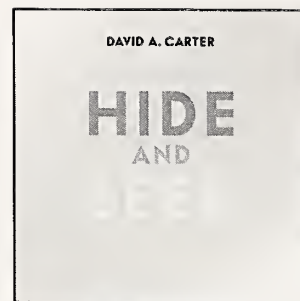


Blue 2

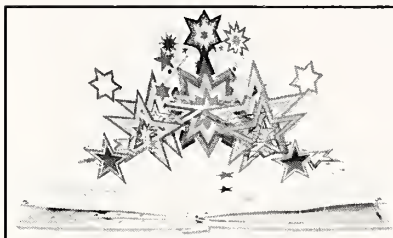
600 Black Spots is demonstrated in a one minute, eleven second YouTube video, with music accompaniment: <https://bit.ly/2H2n5fS>.

Yellow Square's pops and action can be seen in a two minute, eight second YouTube video, to the accompaniment of lively music: <https://bit.ly/2qDu5tp>.

Hide and Seek can be viewed in a one minute video from Abrams Books (<https://bit.ly/2H2DIrI>), which demonstrates the action to a music accompaniment.



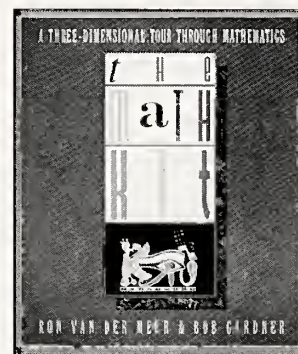
Hide and Seek



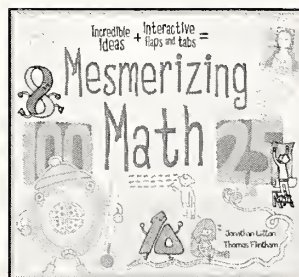
How Many?

Another example of one book teaching multiple math lessons is Ron van der Meer's *How Many? Spectacular Paper Sculptures* (2007). Brightly colored double page pop-up spreads are reminiscent of Alexander Calder sculptures, and the book is promoted as a "unique work of art" (back cover). The pages contain many questions to engage the young reader with shapes and other math concepts, as well as critical thinking, that are revealed in the book. For instance: How many circles are solid? If the square has a border, does that count as another square? What is the longest line? The book is designed and paper engineered by Ron van der Meer and Graham Brown, with text by Yvette Lodge, and graphics by Tim Dyer.

Finally, we want to mention three titles which, while their interactivity is not predominantly pop-up, are such ambitious coverage of mathematics that they must be mentioned. One is *The Math Kit: A Three-dimensional Tour Through Mathematics* (1994), with text by Bob Gardner and Steve Mills (both mathematics educators at the University of Reading), and conceived, produced, designed, and paper engineered by Van der Meer Books. Typical in format of other Van der Meer "kits", the information dense pages include such interactivity as a pop-up of an Egyptian pyramid (product of mathematics) and a removable geodesic sphere. Sections of the book include number, algebra, shape and space, and handling data. The back cover says the book is "for everyone from the thoroughgoing math illiterate to the most gifted mathematical prodigy."



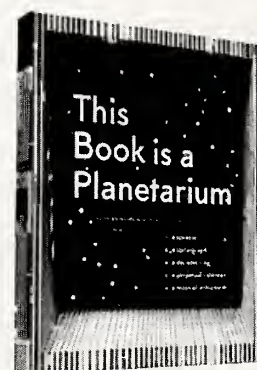
The Math Kit



Mesmerizing Math

Mesmerizing Math (2013) is for a younger audience (ages seven to ten) than *Three-dimensional Tour*. The book was written by Jonathan Litton, illustrated by Thomas Flintham, edited by Libby Hamilton, and paper engineered by Andy Mansfield. As with *Three-dimensional Tour*, the pages are rife with information and interactivity, including a few pop-ups. It covers an enormous range of math topics, from square numbers, to the golden rectangle, to probability, to tessellations. Because of its accessibility, we would recommend this title for the aforementioned "thoroughgoing math illiterate!"

Finally, there is the 2017 title, *This Book is a Planetarium*, by Kelli Anderson. While not marketed as a math title per se, the large book (about a foot tall) introduces the reader to "light, sound, time, and space," (back cover) for which real understanding requires mathematics (although several of the models demonstrate very clear linkages to math). The book includes working pop-up models of a perpetual calendar (time), a decoder (encryption), a stringed instrument, a speaker, a "planetarium", and a spiralgraph (geometry).



This Book is a Planetarium

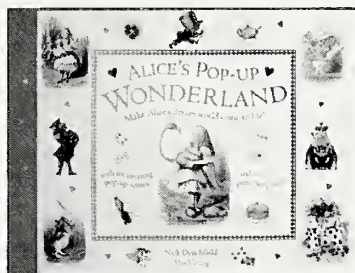
The Special Case of Alice

The classic children's book, *Alice's Adventures in Wonderland* (1865), was penned by Charles Lutwidge Dodgson (writing as Lewis Carroll), an Oxford mathematician. The book has been construed as his satire, from a conservative mathematics view, of the nineteenth century's emerging abstract concepts, such as imaginary numbers. For juvenile audiences, however, the story presents simpler, implicit mathematical principles to ponder, such as proportion, base numbers, relational terms about space (such as "down"), and logical thinking. As with other perennial favorites in children's literature, there have been many interactive versions of Alice through the years.



Alice in Wonderland: A Classic Story Pop-up Book with Sounds

Alice in Wonderland: A Classic Story Pop-up Book with Sounds (2011), which is described in our article on sound and movable books in the November 2015 (vol. 23, no. 4, p. 7) newsletter of *Movable Stationery* (<https://s.si.edu/2yKL0gq>). Also, there is Maria Taylor's *Alice in Wonderland: With Three Dimensional Pop-up Scenes* (2015)

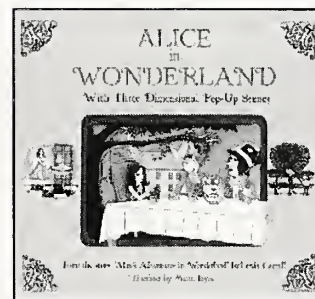


Alice's Pop-up Wonderland

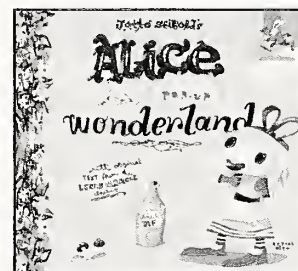
A 2000 title by Nick Denchfield (paper engineer) and Alex Vining is *Alice's Pop-up Wonderland*. The rectangular book is about thirteen inches long and is held together with ribbon ties. Open it up and there is a carousel of six elaborately detailed pop-up scenes that can be tied open with the ribbons. Using press-out pieces of characters and various accessories, one can furnish the backdrop scenes to "Make Alice's dream world come to life!" (cover). Short text on the bottom edges of the scenes offers explanations of each setting, and three pages in the front of the book give an abbreviated version of the story and its dialog.

J. Otto Seibold's 2003 *Alice in Wonderland* promises a "super dimensional pop-up" (cover). The "original text

from the Lewis Carroll classic" is incorporated into a richly detailed presentation reminiscent of graphic novels. The seven (including one that incorporates the verso of the front cover) double page spreads provide elaborate pops-ups of iconic scenes such as Alice falling down the rabbit hole, having tea with the Hatter, and meeting the Queen. Pull tabs, flaps, and gatefolds add more interactivity to already intricate scenes. The elaborate detail and interesting use of color (much use of olive and red) in this version is clearly seen in an eight minute, one second YouTube video accompanied by a casual, earthy review by an enthusiastic buyer (<https://bit.ly/2qBwGDj>) — some viewers might wish to mute the sound.



Alice in Wonderland: With Three Dimensional Pop-up Scenes



Alice in Wonderland. 2003

Robert Sabuda's 2003 *Alice's Adventures in Wonderland* uses elaborate pop-ups "illustrated in John Tenniel's classic style" (back cover). Also, for teachers, it can be useful to know that "the text is faithful to Lewis Carroll's original story" (back cover). The book can be seen in a YouTube video (five minutes, twenty-five seconds) that offers up-close views of the book's interior and action, accompanied by an attributed musical score, but without narrative (<https://bit.ly/2JNqUHw>). In the video, one gets the full impact of the book's last pop-up of the playing cards flying through the air, which always entranced our workshop audiences.

New Paths

For the individual who might have an interest in sharing pop-up books and math in workshops, or who simply wants to introduce a young reader to the juxtaposition of pop-ups with math, the web provides ready access to lesson plans that provide ideas. Two examples follow.

Force & Motion 4-5: Pop-ups

<https://bit.ly/2vpAr4e>. "This unit introduces paper pop-up mechanisms as an experiential base for elementary science, engineering and math." The unit contains 12 lessons in which students analyze pop up books and then create their own pop-ups.

History on Stage Pop-Up Lesson (Smithsonian Institution) <https://s.si.edu/2HBWHKI>.



Alice's Adventures in Wonderland

This cross-curricular lesson for grades five to eight “introduces students to the variety of mechanisms included in movable books and encourages them to build their own pop-up. Making pop-ups subtly reinforces students’ understanding of mechanical movement and helps budding architects, designers, and engineers begin to envision objects three dimensionally.”

Conclusion

A 3-D approach to what is often seen as just numbers has the potential to spur enthusiasm in young audiences for fundamental mathematical principles underlying all aspects of our lives. Math can be fun, and visual!

Notes:

¹ The movie was based on the 2016 book, *Hidden Figures: The American Dream And The Untold Story of the Black Women Mathematicians Who Help Win the Space Race*, by Margot Lee Shetterly. The book covered 1943 to 1980 and recounts the story of forty-eight African American women who worked for NASA, and its predecessor, the National Advisory Committee for Aeronautics (NACA), with focus on Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden. The movie emphasized the stories of Johnson, Vaughan, and Jackson. It received Oscar nominations in 2017 for Best Picture, Best Performance by an Actress in a Supporting Role, and Best Adapted Screenplay.

² The movie’s cast includes Oprah Winfrey, Reese Witherspoon, Mindy Kaling, Gugu Mbatha-Raw, Chris Pine, and Zach Galifianakis.

³ It has received the 1963 Newbery Medal (<https://bit.ly/1az05MM>) and the 1965 Sequoyah Book Award (Children) (<https://bit.ly/2H4BSe6>). It is also included on the American Library Association’s list of “Frequently Challenged [attempts to ban] Children’s Books” (<https://bit.ly/2wxhOaa>).

⁴ For a list of those *National Geographic* titles, see the online series index to the two print volumes of *Pop-up and Movable Books* and the online *Supplement 2*, by Ann Montanaro (Staples) at: <https://bit.ly/2HqK1Jg>.

into book form.



Figure 3

The hole-in-the-head books in the Dame Wonder’s Transformations series are also clearly related to the earlier form of movable book pioneered by the publisher S&J Fuller from 1810, in which a single cut-out head is moved between cut-out paper doll figures to interactively illustrate the developing narrative. Indeed, the turn-up book format which became popular in the late 18th and early 19th centuries can also be cited as an antecedent as they also produced “changed-body” and “changed-head” effects on occasion, through the use of lift-up flaps in this case.



Figure 4

A Head of its Time, continued from page 1

This clever publishing innovation draws on an earlier history going back to the 17th century, when painted transparent mica was used to create overlays for a face, allowing changes in head wear, costume, rank and even gender (Fig. 1, from Dick Balzer’s collection). The same principle is used in handmade toys with watercolors on paper, often dating from the early and middle 19th century when painting was encouraged as a recreation (Fig. 2, 3). As with so many of their ground breaking toy and movable books, Dean’s commercial brilliance was in taking an existing paper technology and incorporating it

The Dame Wonder’s Transformations series was first published by Dean & Munday (as the company was then named) in ca. 1840. They must have proved popular as they continued to be issued under the imprint Dean & Co, which it is believed was used by the company for a short period from 1847. The series included an alphabet book, a times table book, and several titles focused on the activities of a particular character, such as in *Mary Goodchild*. The illustrations are by Robert Edgar who was pseudonymously called “Uncle Buncle” on the wrappers. Just as with the turn-up books and the ‘doily figure’ books before them, the idea was quickly taken up in the USA, where Edward

Dunigan plagiarized the Dame Wonder's Transformations series. The *New-York Daily Tribune* advertised this (December 28, 1843) as "a series of brilliant toy books for children" and commented that "The engravings will arouse the little ones" but said nothing specific about the transformation mechanism.¹

It is interesting to compare the Dean books with their American piraeies (Fig. 4). In the case of *Dame Wonder's Transformations of the Pretty Pence Tables*, the English version has a text which goes through the rigmarole of the base-12 pence and shillings money counting system, but this could not translate for an American audience who used a decimal based currency.

Dunigan's piracy, *Dame Wonder's Transformations Table Book* therefore gives a lesson on money counting on just the first page and has texts about other types of counting unit for the remainder of the book – weights, liquid, time, etc. Despite the change in subject matter, the artwork is closely based on the Dean original (Fig. 5).



Figure 5



Figure 6

In the 1860s Dean & Son developed the format to a new level of intricacy with the publication of four titles which replaced the painted illustration of a head on the final page with a three dimensional head



Figure 7

made of gutta-percha (a resin with similar properties to rubber) and with glass bead eyes (Fig 6). These books were also published in French by Guerin Muller (Fig. 7). The head was mounted on the back board and incorporated into an illustrated paste down. The thickness of the pages and hard-backed front board, which also included a hole, gave a degree of protection to the head model. The series was called Dean's Flexible Face Books, and was described in their advertising: "The Novel Faces always astonish, please and amuse. Each book comprises eight well-finished colored pictures with appropriate descriptions, while the face being elastic may be made to appear jolly or moody, long or short at pleasure, and to adapt itself to the illustration. 2s. half-bound, illuminated covers." Needless to say, the rare survivals have no flexibility: their faces are frozen in time (Fig. 8, 9).



Figure 8



Figure 9

In the example *The Unchangeable Dame* (cover title) the story follows a lady's progress through stations in society from the wife of a humble ploughman who is conscripted into the army, to Lady John Hodge, wife of the Mayor (Fig 10).

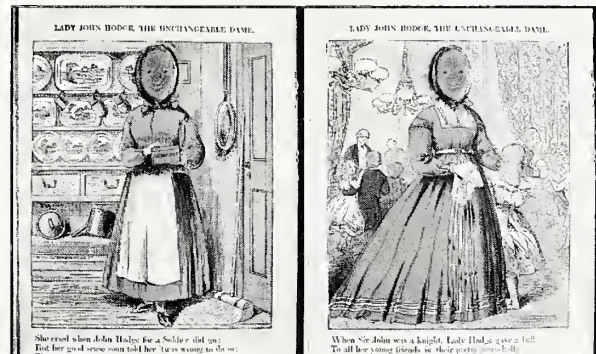


Figure 10

(Her husband's parallel story is told in *The Hearty Old Boy*.) At the end of *Lady John Hodge, The Unchangeable Dame* (as the running title reads) the point is made that despite her rags to riches progress, the lady remained fundamentally the same good soul. The narrative has been constructed to chime with the mechanism, since we see that although her clothing and outward appearance change, the part of her which is expressive of her core self – her face – is unchanged by her fortunes. Leslie McGrath (*This*

Magical Book: Movable books for Children, 1771-2001) describes how the mechanism and narrative content are also aptly suited in the same kind of way in the earlier Dame Wonder's Transformations series title *The Sailor Boy*, where "Poor Jack" is seen maintaining a cheerful and optimistic disposition despite the various trials of his progression from a fisherman to a lieutenant.

A further, later example with a gutta-percha model head is the title *One Head as Good as Eight*, announced in *The Bookseller* trade magazine (October 3, 1870) as "the latest addition to the Flexible Face Series." Leslie McGrath describes in her exhibition catalog of Toronto Public

Library's movable books that the gutta-percha head in one of their Flexible Face series examples has become detached, and reveals that a printed head exists underneath the three dimensional one. She suggests that perhaps the publisher anticipated an early separation of the face from the board. However, the example of *One Head as Good as Eight* in Fig. 11 also has no model head and nothing about the painted image suggests that anything was ever attached to the paper. We are aware also of a copy of the Flexible Face book *Jolly Old Man* where no model head had been attached. It therefore seems likely that the printed heads below the model heads allowed the books to be published in two forms, and this was done on occasions.

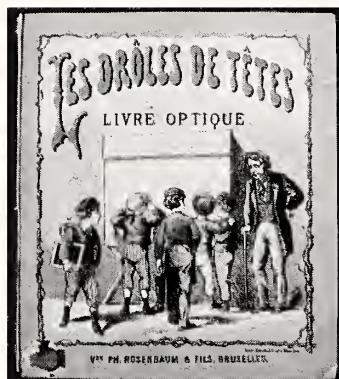


Figure 12

Lothar Meggendorfer produced a hole-in-the-head book ca.1889, *Der Verwandlungskünstler*, and examples of this title are known both with a carved wooden model head mounted at the back, and also with a two dimensional head illustrated on paper.



Figure 11

Dean returned to the hole-in-the-head idea in the 1880s with the publication of two titles in their Surprise Picture Books series, printed in Holland by Emrik & Bingen. They echoed the series title of their books from a generation earlier in *Dame Wonder's Changing Characters: Peepshow Picture Book*; and the other title was *Peepshow Picture Book: Surprise Changing Characters*. These books used illustrations and not three-dimensional model heads, but adapted the format to include base faces in both the front and the back



Figure 13

of the book, with the pages illustrated verso and recto – two sets of adjacent transforming images were therefore seen. In *Surprise Changing Characters*, there was the further innovation of two holes in each page rather than just one (Fig. 12, 13, where the French edition is shown). However, they went on to produce at least one further book with a model head c.1900, the title *There was a Little Man and he had a Little Gun*, with nursery rhymes illustrated in a Japanese style by Yoshio Markino. In this case the front board was made of extremely thick board with bevelled edges to protect the head, which may have been made of gypsum rather than gutta-perch (Fig. 14). Although described on the cover as "FUNNYFACE BOOK Number 1," we are not aware of a further title being published.



Figure 14



Figure 15



Figure 16

There were several other late 19th and early 20th century examples of books that used the novelty feature of a hole through the pages showing a head. A very cheaply produced example from Germany, probably published for the international market, is *Metamorphosis* (Fig. 15). A clever use of the format is seen in *The Royal Likeness*, produced at the end of the 19th or start of the 20th century (Fig. 16). It has a tri-fold form and the cutaway hole uses the face of Queen Victoria as the base picture to demonstrate how well her features fit into Edward VII and George V.

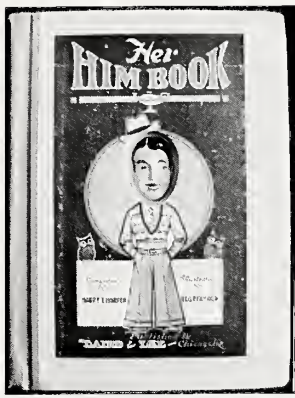


Figure 17



Figure 18

The 20th century saw further twists on the hole-in-the-head theme. Clearly inspired by the Flexible Face books, but also highly original and absolutely charming, is *Her Him Book*, published by Laird & Lee in Chicago in 1926, with musical jingles composed by Harry Harper and illustrations by George Fayko (Fig. 17, 18). Here, a three-dimensional head which seems to be made of a plastic compound is mounted on the back board and shows through all pages including the cover of the book. It is a clever title for a book of devotional songs: the book is for girls to classify and record potential suitors! Between leaves which illustrate each type of “Him” – Tennis Him, Motor Him, Football Him, etc – are titled blank pages for the girl owner to record the names of the “Hims” she knows. The copy we have examined was owned by Beth Moore, who thought of Bud Matteson as a “Little Boy Him,” and Roger Bossen as a “School Day Him,” whilst Matthew was her “Oceasional Him.”

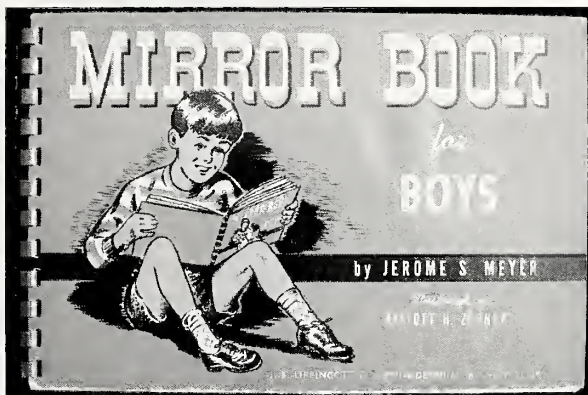


Figure 19

A mirror mounted on the back of the front board was used rather than an illustration or a model head in *Mirror Book for Boys*, published by Lippincott Co. in 1949 (Fig. 19, 20). The boy reader can see his own face incorporated into a variety of exotic types: “You’ll be an Eskimo in the far north one minute and the next you will be killing tigers in the Bengal jungles,” he is promised in the introduction, “Just hold the book so that you see your entire face in the left hand page oval and shut one eye – but don’t squint.”

Raphael Tuck published another novelty in the 1950s which also gives children the chance to see themselves through cut out holes – as a soldier; traffic cop; bus conductor etc. Available in different versions for boys and girls, these *Look At Me* books have an image on the final page and visible through page holes (much the same design as Dame Wonder’s Transformations), but the point of the book is for parents to paste their child’s photo over this so they can “watch the fun” as the children see themselves in multiple guises (Fig. 21).



Figure 20

Holes have gone on to have starring roles in a great variety of best-selling children’s interactive books, including *Pat the Bunny* and *The Very Hungry Caterpillar*, but they have a history which starts with heads and the Dame Wonder’s Transformations series. We would be interested to hear of any other early examples which are unknown to us.



Figure 21

¹ Note that Blair Whitton was mistaken in his suggestion of a much later date for the American Dame Wonder’s Transformations publications in his book *Paper Toys of the World*; possibly the confusion was because the series name Dame Wonder’s Picture Books was used in the 1870/80s by McLoughlin for non-movable books after they took over Dunigan’s publishing business.

2018 Conference Silent Auction

A Silent Auction is held at each Movable Book Society conference. Even if you are not attending this year you can contribute and assist with funding scholarships. Fill out the Silent Auction form available on the web page and include it with your contribution. Mail it to Patrick W. Kershner, P. O. Box 12105, Overland Park, Kansas 66282.

Poppits

Ellen G. K. Rubin
Scarsdale, New York

Announcement

Can't remind you often enough how much we would love you to celebrate with us the MBS 25th Anniversary in Kansas City. Discounts for signing up early! <https://bit.ly/2qtMTuh>.

Exhibitions/Lectures

Hudson Valley Book Arts Tour: June 10, 2018. Join with members of the Center for Book Arts, The Grolier Club, and Friends of Dard Hunter to see bookish sights in the beautiful Hudson River Valley, New York. <http://bit.ly/2GUcHH5>.

Multimedia

The website, Atlas Obscura, a really fun site to follow, did a print piece on *moi*, The Populady and my collection. <http://bit.ly/2puAy9o>. More recently, they began a video series on collectors of all kinds, starting with a pop-up collector you know well. <http://bit.ly/2GJh8oG>.

This ad agency uses pop-ups in their ad videos - <http://bit.ly/2GThqJ4>.

I blushingly share with you the flipbook my son gave me for my collection. He received it as an incoming college freshman. Here is Proud Pete: <http://bit.ly/2GBIkWy>. Peter Dahmen dares to be great! <http://bit.ly/2GWYyag>.

Workshops

Our very own Emily Martin will be teaching how to make paper puppets using movable paper techniques at the Center for Book Arts, New York City, June 9-10, 10-4 p.m. <http://bit.ly/2GUgQdW>. Emily recently completed her hysterical spoof on The Donald using puppets of different structures. <http://emilymartin.com/?p=2486>. I don't call her the Erma Bombeck of paper engineering for nuthin'.

The Architecture of Paper in Beechingstoke, Wiltshire, UK is being taught by Dario Zeruto, June 12-14, 2018. Learn how to divide geometric patterns, how to work with the concept of repetition, pattern and rhythm within design, how to create graph charts of 3D structures and much more-all with paper. <http://bit.ly/2GRF1bF>.

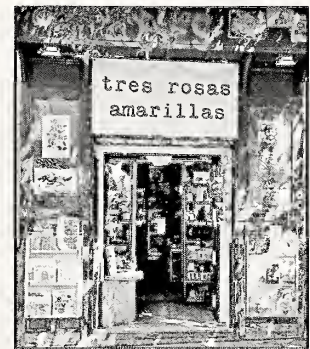
Oh, Pop-up! Le Blog de Livres Animé (pop-up book in French) is a blog devoted to pop-ups. I don't think I alerted you to it previously but since it is ongoing, why not repeat it? This site is rich with information, illustrations, and slide shows. <http://ohpopup.canalblog.com/> (The browser Chrome will automatically translate websites to English or whatever language you choose.)

Publications

Jacques Desse, the pop-up and movable book expert and bookseller in Paris has produced an astounding book, *Figures Mobiles, a Bibliography of the First French Movable Books for Children*. It is a catalog of the works, the various editions and translations, essays and studies on the mechanisms, the publishers, and the cultural context. PDF Book, 500 pages, 1,000 illustrations. 25 euros. Contact: j.desse@wanadoo.fr.

Visiting Madrid?

If you have the opportunity to visit Madrid, Spain, plan to visit Librería Tres Rosas Amarillas at Calle Espiritu Santo 12. This small shop is packed full of fabulous treasures! On a rainy evening in March I had the opportunity to spend about an hour there with founder and owner José Luis and I could not stop adding to my stack of purchases. (Since they do not ship to the U.S., I was limited in what I could carry but recorded lots of titles for future acquisition.) The store features movable books in many languages: English, Spanish, French, German, and probably others. And throughout the store are cut paper displays, paper mobiles, banners, and cards. As a paper enthusiast I could not stop marveling at all I saw. José was endlessly patient with me and my friends as we explored every corner of the store finding new things to excite us at each turn. In addition to running the store, José is a serious writer and a publisher as well as a talented paper artist.



Tres Rosas Amarillas

A note from the store owner: "If you happen to be in town during the Madrid Book Fair (May 25 to June 10 in the Retiro Park) it's also worth coming to see us there (not least because everything gets a little discount during the fair, a rare thing since Spain does not allow for Amazon-style discounted prices, which is a blessing for independent booksellers)."

Questions

Q. I want to purchase a copy of *A to Z: Marvels in Paper Engineering* being published by The Movable Book Society. How do I get a copy?

A. Copies will be available in the fall. An announcement will be made on the web pages (movablebooksociety.org) about how the book can be purchased.

Capturing that similar effect in print took a bit more effort. *3 D Movie Magazine*, for instance, came with its own pair of cardboard glasses, so you could successfully view the otherwise blurry pix of “your favorite stars in full, rounded three dimension.” A 3-D greeting card was another story. Here, origami-like paper folds created an interior “surprise.” When the card was opened, the folds unfolded, and there was no telling what might spring forth: a fire truck with towering ladder . . . a frolicking kangaroo, her pouch filled with well-wishing joeys. . . a “get well” donkey kicking up its heels . . . a birthday-wishing bowler, knocking down every pin. . . even a 1950s anniversary couple, enjoying their first-ever “TV.”



Birthday card cover and pop-up



These were greetings on a grand scale, “cards which say in the modern manner just what’s in the sender’s heart.” And to sell them, all it took was a simple demonstration (“look—that baby elephant is actually wagging his Dumbo-size ears!”). Said Wallace Brown, “They’ll snap up 2, 3, 6 or more boxes right on the spot! Why, you’ll be taking orders right and left, and you’ll keep 50 cents of every dollar you take in!”



Birthday card cover and pop-up



But twenty potential buyers? Even though it was “no money down—don’t send a penny,” was this a risk worth taking? Wallace Brown had the answer:



Belated birthday card pop-up

“Don’t know 20 people? Of course you do! Add up a half-dozen relatives, perhaps 5 neighbors, the butcher, the baker, the milkman, your dentist, several friends and other tradespeople, and you’ve already got a *lot* more than 20. So what are you waiting for?”

What indeed? In their day, these intricately folded cards elicited the same sense of wonder that cards with singing microchips aim for today. And luckily, mint-in-box vintage sets can still be found at garage sales, in the \$20-30 range. Who did they belong to? Those long-suffering relatives and unsuspecting dentists who forked over their dollar bills for a box of “18 exquisite pop-up cards,” but never got around to actually sending them? The would-be salesman who kept the cards past their “on approval period,” then had to cough up the purchase price? (yup, there was a catch). Either way, they serve as cheery reminders of days gone by.



Birthday card cover and pop-up

The next time you run across a box, snap it up. You may want to send some out. Or, if you’re like me, you may want to keep them all for yourself. They were, after all “the most thrilling cards ever created by *anyone*.”

Donald-Brian Johnson is the co-author of numerous books on design and collectibles, including “Postwar Pop”, a collection of his columns, and an upcoming second volume.

New Publications

The following titles have been identified from Internet sources, book store hunting, and advertising. All titles include pop-ups unless otherwise noted and are listed for information only - not necessarily as recommendations for purchase.



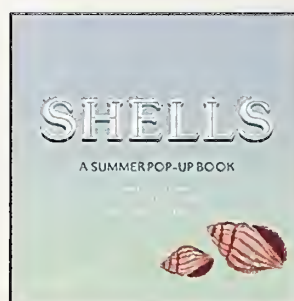
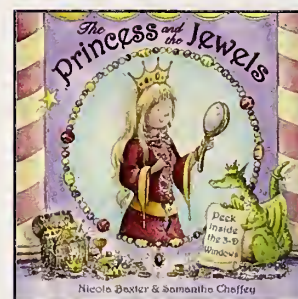
Die Häschenschule - Pop-up-Leoporello-Buch. (The Bunny School Leoporello Book) Esslinger Verlag. £7.50. 9783480401284.

The Carousel of Animals. By Gérard LoMonaco. Little Gestalten. £14.30. 9783899558012



Princess & the Jewels. Peek Inside 3-D Windows. Hermes House. £5.99. 9781843226260.

Pop-up Things That Go! Candlewick Studio. \$12.00. 9781536201208.



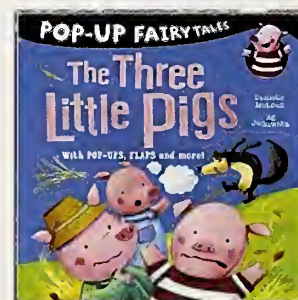
Shells: A Summer Pop-up Book. Jumping Jack Press. £21.47. 978-1623485269



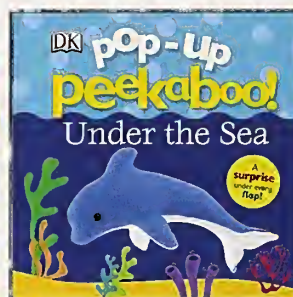
Dress Me Up! A Mix-and-Match Play Book. Chronicle Books. \$12.99. 9781452160399.

Hermes Pop-up Book. Actes Sud. £22.50. 9782330106485.

The Three Little Pigs. Pop-up Fairytales. June. Little Tiger Press. £10.99. 9781848699090.



Jungle: A Lift the Flap Pop-up Book about Colors! Seek & Peek. Barron's Educational Series. £7.16. 978-1438050461



Under the Sea. Pop-up Peekaboo. July. DK Children. \$9.99. 9781465473165. Also: *Baby Dinosaur.* 9781465474551. *First Words.* 9780241317068.



Quand je t'attendais: Pop-up. (When I was waiting for you: Pop-up) Gautier Languereau. 9782017024712.

The World Famous Book of Counting. Big Picture Press. \$18.99. 9780763698942.

